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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/646,194
Filing Date: September 14, 2000
Appellant(s): SAIGA ET AL.

David A. Tucker
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed March 17, 2010 appealing from the Office action mailed May 12, 2009.

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(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 28, 31-38, 41-47, 50, and 53-55.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

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(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

5,634,064	WARNOCK et al.	05-1997
6,599,324	SAITO et al.	07-2003
JP 5-323941	OTA	05-1993

Bienz, et al. "Portable Document Format Reference Manual Version 1.2." November 27, 1996. [retrieved on 9/15/2003]. Retrieved from the Internet <URL: <http://www.isg.inf.ethz.ch/docu/documents/postscript/pdftspec.pdf>>.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 28, 31, 33-38, 41, and 43-47, 50, and 53-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over the “Portable Document Format Reference Manual, Version 1.2,” which is attributed to Bienz et al. (and hereafter referred to as “Bienz”), over U.S. Patent No. 5,634,064 to Warnock et al. (hereinafter “Warnock”), and also over U.S. Patent No. 6,599,324 to Saito et al. (hereinafter “Saito”).

In general, Bienz describes the Portable Document Format (PDF), a file format used to specify electronic documents such that the documents are easily and reliably exchanged and viewed (see section 2.1, on page 27). Such PDF documents are stored as files (see section 2.3.2, on page 30), which are understandably maintained in computer memory. As described below, each of these files comprises data to be displayed, in addition to all the display information and scroll display control information necessary for the display of the data. Each of these PDF files is consequently considered a “pre-specified unit,” like recited in the claimed invention. Therefore, computer memory having one or more PDF files stored thereon is considered a data storing medium with display data recorded thereon, wherein the display data is recorded in the form of pre-specified units.

Specifically regarding claims 28 and 38, a PDF file describes a document, and comprises all of the information necessary to display the document. For example, Bienz discloses that a PDF document is implemented by a hierarchy of objects included within a PDF file (see section 6.1 on page 71). In particular, each page of the document is realized by a corresponding “Page object,” the Page object being efficiently accessed through a “Pages tree” structure (see section

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6.3, beginning on page 75). Each Page object describes the content and functionality of a single document page (see section 6.4, beginning on page 77), and particularly comprises a “Contents” parameter, which references the page description of its corresponding document page (see section 6.4, on page 78). It is understood that this page description comprises a series of graphic objects, considered display elements and image data objects like recited in claims 28 and 38, respectively, which are displayed within the associated document page (for example, section 8.1 beginning on page 209).

In addition to all the necessary display data, a PDF file comprises all the information necessary to scroll the document. For example, Bienz discloses that a PDF file may define one or more article “threads,” each comprising one or more “beads” (see section 6.12 beginning on page 111). An article bead is associated with a distinct section of an article, whereby a plurality of such beads may be linked into a common thread, so that a user may read an entire article by scrolling from one article bead to the next, rather than from one page to the next (see section 6.12, beginning on page 111). In particular, each bead includes an “R” parameter, which identifies the page location on which its associated article content (i.e. graphic objects) appears (see Table 6.44 on page 112). It is apparent that this page location is specified in a coordinate system according to the coordinate values assigned to the article content, since the R parameter is denoted by 4 values that identify the coordinates of the corners of the rectangle surrounding the associated article content (see section 7.1 on page 133). Each article bead is thus specified by a rectangle, or in other words, by two sets of line segments having different directions in a coordinate system - two parallel line segments extending in a first direction, and two parallel line segments extending in a second, transverse direction. The coordinate values denote the starting

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and ending points of these line segments. Additionally, each bead includes a “T” parameter, a “V” parameter, and an “N” parameter, which respectively identify the thread on which the bead belongs, the previous bead in the thread, and the next bead in the thread (see Table 6.44 on page 112). The beads are accordingly linked into a common thread such that a user may scroll from bead to bead, i.e. article section to article section, in order to read an entire article. It is apparent that in doing so, the above-described T, V, and N parameters are used to move from one bead to the next, whereby for each bead, the above-described R parameters reference the bead’s associated article content (for example, see section 6.12 on page 111). Consequently, as a thread is formed by a plurality of intervals, namely beads, which are specified by line segments having different directions in a coordinate section defined by the PDF file, a thread is considered a scroll path along which scrolling through a document is to be conducted.

Bienz thus presents a pre-specified unit of display data (i.e. a PDF file), which includes (i) a series of display elements (e.g. graphic objects) for display by the display device, and (ii) management elements associated with the display elements, the management elements including all information necessary for the display device to display a predetermined sequence of said display elements as a scroll display, and wherein the predetermined sequence of the display elements includes an interval (i.e. bead) or intervals that sequentially together form a scroll path (i.e. thread), each interval being specified by line segments defined by coordinate values of a starting point and an ending point in a coordinate system defined by the pre-specified unit corresponding to coordinate values assigned to the display elements in the pre-specified unit., as is claimed. Bienz, however, does not explicitly disclose that the display elements forming the intervals defining the scroll path are respectively *sequentially* displayed from the starting point to

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the end point thereof as the scroll path is displayed by the display device, as is required by claims 28 and 38. Moreover, Bienz fails to explicitly disclose that a plurality of such pre-specified units, i.e. PDF files, may be used together to define a single complete document, as is expressed in claims 28 and 38.

Like Bienz, Warnock describes linking a plurality of article sections into a common thread, so that a user may read an entire article by scrolling from one article section to the next, rather than from one page to the next (see e.g. column 2, line 29 – column 3, line 2; and column 12, lines 10-45). Warnock further discloses that when each section is displayed, the section is automatically panned and zoomed to fit within a display window (see e.g. column 9, lines 41-55; and column 10, line 56 - column 11, line 25). Warnock suggests that an entire section may not be displayed at the appropriate zoom level within a window, and as a result, the section is displayed *sequentially* from a starting point to an ending point defined by the bounds of the article section while the user scrolls through a thread (see e.g. column 6, lines 55-65; and column 10, line 56 - column 11, line 63).

It would have been obvious to one of ordinary skill in the art, having the teachings of Bienz and Warnock before him at the time the invention was made, to modify the display of each article section taught by Bienz such that it is panned and zoomed like done by Warnock, which can result in the display elements (i.e. article sections) forming the intervals being respectively sequentially displayed from their starting point to their end point as the scroll path is displayed. It would have been advantageous to one of ordinary skill to utilize such panning and zooming, because it enhances readability, as is taught by Warnock (see e.g. column 9, lines 41-55).

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Moreover, composing a single complete document via a plurality of separate files is well known in the art. For example, Saito suggests that an single complete document can be defined by a plurality of separate files, with each file defining a separate part of the document (see e.g. column 1, lines 22-50; and column 2, lines 32-38). Saito teaches that by composing a single document using a plurality of separate files, different access rights can be specified for different portions of the document (see e.g. column 1, lines 22-50; and column 2, lines 32-38).

Accordingly, it would have been obvious to one of ordinary skill in the art, having the teachings of Bienz, Warnock, and Saito before him at the time the invention was made, to implement the PDF format taught by Bienz and Warnock to create a plurality of PDF files, each describing a single portion of a document, like taught by Saito. It would have been advantageous to one of ordinary skill to utilize such a combination, because it would allow the user to specify different access rights for different portions of the document, as is suggested by Saito.

Accordingly, Bienz, Warnock, and Saito are considered to teach – to one of ordinary skill in the art – a data storage medium (i.e. computer memory) like that of claim 28, which is for use with a display device, the data storage medium having recorded thereon a plurality of pre-specified data units (i.e. PDF files) that together define a single complete document recorded thereon.

Similarly, Bienz, Warnock, and Saito teach a data storage medium like that of claim 38, the data storage medium having display data associated with a single complete document recorded thereon, the display data including a plurality of image data objects for display on a display screen of a display device and all management information associated with each of the image data objects required by the display device for scroll display, thereof.

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As per claim 31, Bienz discloses that a PDF document may display a link, similar to a hypertext link, which may be selected to display a thread of the same PDF document, or of a different PDF document (see section 6.9 beginning on page 96, and particularly section 6.9.5 beginning on page 101). It is understood that a user may encounter such a link when reading through an article thread (e.g. at the end of an article thread), and that the user may select the link in order to display another article thread referenced by the link, starting at the beginning of the other article thread. The predetermined sequence of display elements can thereby include linking means for causing a display device to link an end point of a first scroll display path (i.e. thread) with a starting point of another scroll display path, like claimed.

As per claim 41, Bienz discloses that a PDF document may display a link, similar to a hypertext link, which may be selected to display a thread of the same PDF document, or of a different PDF document (see section 6.9 beginning on page 96, and particularly section 6.9.5 beginning on page 101). It is understood that a user may encounter such a link when reading through an article thread, and that the user may select the link in order to display another article thread referenced by the link. Such a link is thus considered information for linking with another scroll display path, i.e. thread, and Bienz is therefore considered to teach that the management information associated with image data objects may contain information for linking a scroll display of selected ones or contiguous groups of image data objects contained in that file with selected ones or contiguous groups of image data objects located on a scroll display path contained in at least another distinct file.

Referring to claims 33 and 43, the article beads of Bienz are considered to constitute “scroll display control information,” as is described above in the paragraphs regarding claims 28

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and 38. As further shown above, each bead includes an R parameter, which delineates a specific article section by means of four coordinate values, these coordinate values defining a rectangle. The beads are linked into a common thread so that a user may scroll from bead to bead in order to read an entire article, whereby for each bead, the content bounded by this rectangle is displayed at an appropriate zoom level (for example, see section 6.12 on page 111). Thus the management elements taught by Bienz include management elements associated with selected areas of the coordinate system defined by the PDF file.

As per claims 34 and 44 the article beads described by Bienz are considered to constitute “scroll display control information,” as is described above in the paragraphs regarding claims 28 and 38. Each bead includes an R parameter, which as shown above, delineates specific document content by means of four coordinate values, these coordinate values defining a rectangle about the content. The beads are linked into a common thread so that a user may scroll from bead to bead in order to read an entire article, whereby for each bead, the content bounded by this rectangle is displayed at an appropriate zoom level (for example, see section 6.12 on page 111). Consequently, it is understood that the size of such a rectangle affects the amount of zoom for the document content referenced by the bead; for example, if the rectangle is the size of an entire page, the document content may not be zoomed much, whereas if the rectangle is much smaller, the document content may be enlarged more significantly. Thus the scroll display control information taught by Bienz includes information, specifically the rectangle identified by the R parameter, which intrinsically specifies a scale of enlargement or reduction of a display area for scroll display.

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As per claims 35 and 45, the B parameter of Bienz, and its referenced article beads, are considered “scroll display control information,” as is described above in the paragraphs regarding claims 28 and 38. Such an article bead includes an R parameter, which as shown above, references specific document content by means of four coordinate values, these coordinate values defining a rectangle about the document content. Regarding the claimed invention, Bienz discloses that PDF documents may include movies and sounds (see section 1.3 on page 20). It is therefore understood that the document content referenced by the above-described R parameter may comprise movies and/or sounds. Consequently, the scroll display control information taught by Bienz can include synchronous reproduction information, namely the R parameter, which specifies data content to be reproduced in synchronism with the scroll display, and wherein this data content may comprise non-motionless data such as sound and/or moving images.

In reference to claims 36 and 46, Bienz discloses that a computer is used for reproducing and displaying a PDF document (for example, see section 2.2 on page 28). As described above, such a PDF document is stored in a storage medium and is scrolled based on the above-described scroll display control information. Such a computer presenting the PDF document described by Bienz is therefore considered a “display device,” like that recited in claims 36 and 46.

As per claims 54 and 55, the article beads described by Bienz are considered to constitute “scroll display control information,” as is described above in the paragraphs regarding claims 28 and 38. Each bead includes an R parameter, which as shown above, delineates specific document content by means of four coordinate values, these coordinate values defining a rectangle about the content. The beads are linked into a common thread so that a user may scroll

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from bead to bead in order to read an entire article, whereby for each bead, the content bounded by this rectangle is displayed at an appropriate zoom level (for example, see section 6.12 on page 111). Consequently, it is understood that the size of such a rectangle affects the amount of zoom for the document content referenced by the bead; for example, if the rectangle is the size of an entire page, the document content may not be zoomed much, whereas if the rectangle is much smaller, the document content may be enlarged more significantly. Thus the scroll display control information taught by Bienz includes information, specifically the rectangle identified by the R parameter, which intrinsically specifies a scale of enlargement or reduction of a display area for scroll display.

Regarding claims 50 and 53, Bienz discloses that a PDF file can define one or more article “threads,” each comprising one or more “beads” (see section 6.12 beginning on page 111). Such beads are considered “intervals” like those of the claimed invention, as is asserted above. Bienz further discloses that each bead is identified by an “R” parameter, which specifies the page location on which its associated article content (i.e. graphic objects) appears (see Table 6.44 on page 112). This page location is specified in a coordinate system according to the coordinate values assigned to the article content of the bead; the R parameter includes four coordinate values, which specify the lower left (i.e. ending) and upper right (i.e. starting) corners of the rectangle surrounding the associated article content (see section 7.1 on page 133). Furthermore, Bienz discloses that each bead includes a “V” parameter and an “N” parameter, which respectively identify the previous bead in the thread and the next bead in the thread (see Table 6.44 on page 112). Such V and N parameters are considered “vectors” like those of the present application, since they generally specify a direction (i.e. a next bead) to which to scroll.

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Accordingly, Bienz teaches vectors (i.e. V and N parameters) that connect the intervals of the scroll path, wherein a display device conducts a sequential display of the predetermined sequence of display elements along each of the sequence of intervals in the scroll path as determined by the vectors.

Regarding claims 37 and 47, Bienz does not explicitly disclose that the scroll display is conducted only while a user instructs a display controller to perform the scroll display in either a forward or backward direction along a selected scroll path (i.e. thread), as is expressed in claims 37 and 47. Nevertheless, Warnock discusses documents which may comprise one or more articles, each article having sections on different pages of the document, whereby a thread may be created so that a user may read an entire article by scrolling from one article section to the next, rather than from one page to the next (see column 2, line 30 – column 3, line 31). When displayed, each article section is automatically zoomed to fit within the display window, yet may still require scrolling if the length of the article section, for example, does not fit within the window (see column 10, line 56- column 11, line 36). Particularly, each article section is displayed at either the beginning of the section and scrolled toward the end of the section, or displayed at the end of the section and scrolled toward the beginning (see column 11, line 31 – column 12, line 9). Regarding the claimed invention, Warnock teaches that the PDF document is scrolled only while the user instructs the computer to scroll the document in either the forward or backward directions along a thread (for example, see column 2, lines 38-55; and column 10, line 56 – column 12, line 9). It would have been obvious to one of ordinary skill in the art, having the teachings of Bienz, Saito, and Warnock before him at the time the invention was made, to further modify a display device displaying the PDF-formatted document taught by Bienz,

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Warnock, and Saito, such that the PDF document is scrolled only while the user instructs the device to scroll the document in either the forward or backward directions along a thread, as is done by Warnock. It would have been advantageous to one of ordinary skill to utilize this combination, because such scrolling in response to user input provides the user more control over the display of the document, as is demonstrated by Warnock.

Claims 32 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Bienz, Warnock, and Saito, which is described above, and also over Japanese Patent No. 5-323941, which is attributed to Michihiro Ota (and hereafter referred to as “Ota”).

As described above, Bienz, Warnock, and Saito teach a data storage medium with display data recorded thereon, wherein like recited in claim 38, the display data is provided with all the necessary information for scroll display on a display screen. This information for scroll display comprises a plurality of beads denoting article sections, which as described above, may be linked into a common thread, so that a user may read an entire article by scrolling from one article bead to the next, rather than from one page to the next (see section 6.12, beginning on page 111). Bienz, Warnock, and Saito, however, do not explicitly disclose that this information for scroll display includes information specifying a scroll display speed, as is expressed in claims 32 and 42.

Like Bienz, Ota discloses a method for presenting a document on a display screen, whereby the document can be scrolled. Regarding the claimed invention, Ota teaches that the scroll speed may be varied according to the number of characters displayed (see the abstract of Ota). Consequently it is understood that the document described by Ota is associated with

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information for scroll display, wherein this information for scroll display includes information on a scroll display speed.

It would have therefore been obvious to one of ordinary skill in the art, having the teachings of Bienz, Warnock, Saito, and Ota before him at the time the invention was made, to modify the information for scroll display taught by Bienz, Warnock, and Saito such that the articles may be scrolled at a rate proportional to the number of characters displayed, as is taught by Ota. It would have been advantageous to one of ordinary skill to utilize such a combination because the resulting document scrolling speed would match the document reading speed of a user, as is taught by Ota (see the abstract of Ota). This is a desirable attribute for a document displaying system. Thus with this combination of Bienz, Warnock, Saito, and Ota, the beads of an article thread are each scrolled at a rate proportional to the number of characters displayed in the article section associated with each bead. In other words, the content of the article section implicitly specifies the scroll display speed of that section. The content of such an article section is determined by the P and R parameters of the bead associated with that article section, as is described above in the rejection for claims 28-29 and 38-39. Thus the P and R parameters of each bead specifies the content of an article section, which in turn includes information (namely the characters displayed in that article section) that determines the scroll display speed, and therefore, the P and R parameters are understood to inherently include information specifying the scroll display speed. Consequently with this combination of Bienz, Warnock, Saito, and Ota, the scroll display control information includes information specifying a scroll display speed.

(10) Response to Argument

At the outset, it is respectfully noted that Appellants' arguments are slightly meandering and repetitive. The following response to Appellants' arguments is consequently a reflection of the Examiner's most sincere effort at identifying and addressing Appellants' issues on appeal.

The Appellant's argue that a PDF file is not the same as the claimed pre-specified data units or distinct files.

In support of their argument that a PDF file is not the same as the claimed pre-specified data units or distinct files, the Appellant's invoke their arguments from December 22, 2003 (Appeal Brief, pages 21-27).

The Examiner respectfully notes that these arguments, however, are no longer relevant. The claimed invention (e.g. claim 28) has changed immensely since 2003. The pending grounds of rejection, though incorporating the teachings of PDF files, are consequently much different from those of 2003 (for example, the rejection of claim 28 is now also supported by the Warnock and Saito U.S. Patents), as are the Examiner's arguments in support of these grounds of rejection.

The Appellants' December 2003 arguments respond to the Examiner's contention (made in a Final Rejection mailed 9/26/2003) that a PDF file comprises a plurality of pages or "page objects" that can each be considered a "pre-specified unit" like claimed (see e.g. page 25 of the Appeal Brief, which states "The PDF Document Format, on the other hand, does not truly contemplate that each so-called 'page' is to be a pre-specified unit in the sense of the present invention"). However, the Examiner has not argued this since May 20, 2004. Beginning with

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the Final Rejection mailed on February 28, 2005 (see page 6) which was in response to numerous claim amendments, and continuing to the present day, the Examiner has maintained that, instead of individual pages within a PDF file, the entire PDF file itself constitutes a single “pre-specified unit.” The Appellants’ arguments from December 2003 ignore this fact, in addition to the additional Warnock and Saito references applied in the pending rejection.

Accordingly, the Appellants’ arguments from December of 2003 are no longer relevant, even if they did satisfactorily address the teachings of PDF files with respect to the claims as structured in December of 2003 (note though that even this is arguable; the Examiner found Appellants’ December 2003 arguments unpersuasive, and consequently maintained the rejection - see e.g. the non-final rejection of 05/20/2004). The Appellants’ arguments from December 2003, repeated on pages 22-27 of the Appeal Brief, can thus be safely ignored; they are no longer applicable to the pending claims or the pending grounds of rejection.

The Examiner respectfully maintains that, for the reasons described above (see e.g. the rejection for claims 28 and 38), a PDF file can be considered a pre-specified data unit and a distinct file like claimed.

The Appellants appear to argue that the PDF Reference Manual’s teaching of a scroll path, which entails moving from one article portion to another *within* a PDF file, is not pertinent to the present invention.

The Appellants assert:

“[M]ovement from one article portion to another within [sic] a given PDF file is respectfully submitted to be inapposite to the present invention. Such selective movement around the confines of a database wherein the formatting of the

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document is stored separately from the contents is not the same as the present invention” (Appeal Brief, page 28).

“[T]he fact that the PDF Reference Manual explains how to select article portions from the content data and to move from the simultaneous display of one grouping of such content data to the simultaneous display of another grouping of content data **within the defined PDF file** [sic] is distinct from the present invention...” (Appeal Brief, page 28).

The Examiner respectfully disagrees with the Appellants arguments. First, the formatting of a PDF document is in fact stored with the content of the PDF document: both the formatting specifications and content are stored within the same PDF file (see e.g. sections 5.1-5.3 on pages 61-62 of the PDF reference manual). The Appellant is correct in that the PDF file structure allows movement (i.e. scrolling) from one article portion to another within a given PDF file (see e.g. section 6.12, beginning on page 111 of the PDF Reference Manual). But contrary to the Appellant’s assertion, this is quite pertinent to the claimed invention.

Claim 28, for example, is directed to storing a plurality of “pre-specified data units,” wherein each data unit includes content (i.e. “a series of display elements for display by the display device”) and information necessary to scroll a predetermined sequence of the content (i.e. management elements associated with said display elements, said management elements including all information necessary for the display device to display a predetermined sequence of said display elements as a scroll display”). It’s important to note that given the broadest, most reasonable interpretation of claim 28 (and the other pending claims), the predetermined sequence of display elements composing the scroll display can all be within the same pre-specified data unit (i.e. file). Claim 28 (and every other pending claim) fails to require the display elements

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composing the scroll display to be from more than one pre-specified data unit (i.e. file), i.e. the pending claims fail to require the scroll path to cross pre-specified units (i.e. files). Accordingly, the Examiner respectfully maintains that each of a plurality of PDF files can be considered a pre-specified unit including a series of display elements and management elements associated with the display elements, the management elements including all information necessary for the display device to display a predetermined sequence of the display elements as a scroll display.

Though the claimed invention does not require the scroll display to be across multiple pre-specified data units (i.e. files), it does require a single complete document to be composed of a plurality of such data units, which is not taught by the PDF reference manual per se. Nevertheless, as described above (see e.g. the rejection for claim 28), Saito suggests that a single complete document can be composed via a plurality of separate files, with each file defining a separate part of the document.

Thus Examiner thus again respectfully maintains that the cited prior art teaches a plurality of PDF files, which can each be considered a pre-specified unit, and which each include a series of display elements and management elements associated with the display elements, the management elements including all information necessary for the display device to display a predetermined sequence of the display elements (within the PDF file) as a scroll display.

The Appellants argue that the prior art fails to teach the sequential display of pre-specified data units or files along a scroll path.

The Appellants assert:

“[T]he fact that the individual blocks of simultaneously displayed data of a given file may [sic] be zoomed or panned [sic] as in Warnock to fit the size of the

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available display device has nothing to do with the sequential display of the pre-specified data units or files of the present invention along the defined scroll path.” (Appeal Brief, page 28).

The Appellants are correct. However, the Examiner respectfully notes that the claims do not require “the sequential display of the pre-specified data units or files...along the defined scroll path.” Claim 28, for example, instead recites “a predetermined sequence of said display elements as a scroll display” and “the display elements forming the intervals defining said scroll path are respectively sequentially displayed from said starting point to said end point thereof as said scroll path is displayed by said display device” (emphasis added). As previously noted, the display elements forming the scroll path can exist within a single pre-specified unit or file. As also described above (see e.g. the rejection for claim 28), the PDF file structure enables a scroll display of a predetermined sequence of display elements within a PDF file, and Warnock suggests sequentially displaying each display element within the sequence from a starting point to an end point thereof as the scroll path is displayed. Accordingly, the Examiner again respectfully maintains that the proffered combination of Bienz (i.e. the PDF Reference Manual), Warnock, and Saito teaches “a predetermined sequence of said display elements as a scroll display,” whereby “the display elements forming the intervals defining said scroll path are respectively sequentially displayed from said starting point to said end point thereof as said scroll path is displayed by said display device,” as is required.

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The Appellants argue that the prior art fails to teach a plurality of separate PDF documents that form a document.

The Appellants assert:

“[T]he art cited an [sic] relied upon by the Examiner does not teach a plurality of separate PDF documents that form a document. Rather, it teaches a document in the so-called PDF format wherein the Content [sic] data is stored separate from the management and display data.” (Appeal Brief, page 28).

The Examiner respectfully disagrees. As described above (see e.g. the rejection for claim 28), Saito suggests that a single complete document can be composed by a plurality of separate files, with each file defining a separate part of the document. Saito particularly states:

It is possible that one document is created through sharing it among a plurality of persons. For instance, a volume of book is written by a plurality of persons in their cooperation, as it is considered that the writing work is performed in their cooperation in the state of electronic documents as mentioned above. (Column 1, lines 23-28).

On the other hand, it may be considered that individual files are made up for documents parts shared by the respective writers or the respective editors. In this case, there is associated with such a problem that it takes a great deal of time to construct the document in its entirety, and errors may easily occur (Column 1, lines 45-50).

According to the present invention, the structured document is treated and an access right is established for each structured part of the document. This feature makes it possible to suitably set up access rights on the respective parts of the document without using a plurality of files, and event if there are variations in lengths of the sentences of the respective parts of the document. (Column 2, lines 32-38).

It would have been advantageous to employ a plurality of PDF files to compose a single complete document, with each file defining a separate part of the document like taught by Saito, because it would enable different access rights for different parts of the document as suggested by Saito (see column 1, lines 22-50 and column 2, lines 32-38).

The Examiner thus again respectfully maintains that the proffered combination of Bienz (i.e. the PDF Reference Manual), Warnock, and Saito teaches a plurality of separate PDF documents that form a document.

The Appellants argue that the Examiner failed to respond to a moot argument

The Appellants note that, in the Final Office Action, the Examiner deemed moot the argument that the scroll path of the claimed invention, which comprises the sequential display of words that make up the text of an article of interest, is distinct from the scroll path of the PDF Reference manual, which comprises the sequential display of blocks of text. The Examiner considered the argument moot in view of the new grounds of rejection presented in that Final Office Action. The Appellants submit that they “have failed to note anywhere in the currently outstanding Official Action whereat the Examiner has responded to the argument that he himself has deemed to be moot” (Appeal Brief, page 29).

In response, the Examiner respectfully notes that the statement - “[t]hese arguments have been considered, but are moot in view of the new grounds of rejection presented hereinabove” - is a derivation of a *standard* form paragraph used in Office Actions that incorporate new grounds of rejection. Apparently, however, Appellants failed to understand it.

“These arguments have been considered, but are moot in view of the new grounds of rejection” obviously means that the new grounds of rejection render the arguments moot. Since the arguments are moot, there is not a need for the Examiner to again respond to the arguments; the cited new grounds of rejection already address the Applicant’s arguments. Indeed, the Warnock reference was specifically introduced in the final Office Action to teach a scroll path defined by intervals that are respectively sequentially displayed from a start point to an end point thereof as the scroll path is displayed like claimed (note that the claims do not recite a scroll path that comprises the sequential display of words that make up the text of an article of interest):

Bienz, however, does not explicitly disclose that the display elements forming the intervals defining the scroll path are respectively sequentially displayed from the starting point to the end point thereof as the scroll path is displayed by the display device, as is required by claims 28 and 38...

Like Bienz, Warnock describes linking a plurality of article sections into a common thread, so that a user may read an entire article by scrolling from one article section to the next, rather than from one page to the next (see e.g. column 2, line 29 – column 3, line 2; and column 12, lines 10-45). Warnock further discloses that when each section is displayed, the section is automatically panned and zoomed to fit within a display window (see e.g. column 9, lines 41-55; and column 10, line 56 - column 11, line 25). Warnock suggests that an entire section may not be displayed at the appropriate zoom level within a window, and as a result, the section is displayed sequentially from a starting point to an ending point defined by the bounds of the article section while the user scrolls through a

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thread (see e.g. column 6, lines 55-65; and column 10, line 56 - column 11, line 63).

It would have been obvious to one of ordinary skill in the art, having the teachings of Bienz and Warnock before him at the time the invention was made, to modify the display of each article section taught by Bienz such that it is panned and zoomed like done by Warnock, which can result in the display elements (i.e. article sections) forming the intervals being respectively sequentially displayed from their starting point to their end point as the scroll path is displayed. It would have been advantageous to one of ordinary skill to utilize such panning and zooming, because it enhances readability, as is taught by Warnock (see e.g. column 9, lines 41-55). (Final Office action, mailed 05/12/2009, pages 5-6).

Accordingly, the Examiner respectfully submits that the Appellant's arguments were addressed in the final Office Action.

The Appellants argue that each separate file of the Saito reference is not a single display element

The Appellants assert:

“[I]t appears that the Examiner somehow feels that his cited art taken in combination allows him to construe each separate file of the Saito reference, for example, to be a single display element along with its associated management and display information in the PDF Reference manual form.” (P. 29).

In response, the Examiner has not construed each separate file of the Saito reference to be a “single display element.” Rather, the Examiner has construed each separate PDF file to be a “pre-specified data unit” as in e.g. claim 28, and a “distinct file” as in e.g. claim 38. As claimed,

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each such “pre-specified data unit” includes a series of display elements (see claim 28), and each “distinct file” contains a plurality of image data objects (see claim 38). But again, the Examiner has not equated each separate file taught by Saito with such display elements or image data objects. The final rejection makes it clear that each PDF file is considered a "pre-specified unit:"

*In general, Bienz describes the Portable Document Format (PDF), a file format used to specify electronic documents such that the documents are easily and reliably exchanged and viewed (see section 2.1, on page 27). Such PDF documents are stored as files (see section 2.3.2, on page 30), which are understandably maintained in computer memory. As described below, each of these files comprises data to be displayed, in addition to all the display information and scroll display control information necessary for the display of the data. **Each of these PDF files is consequently considered a “pre-specified unit,” like recited in the claimed invention.** (Final Office action, mailed 05/12/2009, page 3, emphasis added).*

Moreover, Bienz fails to explicitly disclose that a plurality of such pre-specified units, i.e. PDF files, may be used together to define a single complete document, as is expressed in claims 28 and 38....

Moreover, composing a single complete document via a plurality of separate files is well known in the art. For example, Saito suggests that an single complete document can be defined by a plurality of separate files, with each file defining a separate part of the document (see e.g. column 1, lines 22-50; and column 2, lines 32-38). Saito teaches that by composing a single document using

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a plurality of separate files, different access rights can be specified for different portions of the document (see e.g. column 1, lines 22-50; and column 2, lines 32-38).

*Accordingly, it would have been obvious to one of ordinary skill in the art, having the teachings of Bienz, Warnock, and Saito before him at the time the invention was made, to implement the PDF format taught by Bienz and Warnock to create a plurality of PDF files, each describing a single portion of a document, like taught by Saito. It would have been advantageous to one of ordinary skill to utilize such a combination, because it would allow the user to specify different access rights for different portions of the document, as is suggested by Saito. Accordingly, Bienz, Warnock, and Saito are considered to teach – to one of ordinary skill in the art – a data storage medium (i.e. computer memory) like that of claim 28, which is for use with a display device, **the data storage medium having recorded thereon a plurality of pre-specified data units (i.e. PDF files) that together define a single complete document recorded thereon.** Similarly, Bienz, Warnock, and Saito teach a data storage medium like that of claim 38, the data storage medium having display data associated with a single complete document recorded thereon, the display data including a plurality of image data objects for display on a display screen of a display device and all management information associated with each of the image data objects required by the display device for scroll display, thereof. (Final Office action, mailed 05/12/2009, pages 5-7, emphasis added).*

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The Examiner respectfully maintains that such PDF files can be considered pre-specified units and distinct files, given their broadest, most reasonable interpretations light of the specification. Rather than PDF files, the Examiner has instead equated the claimed display elements (claim 28) and image data objects (claim 38) with document content (e.g. portions of an article) within a PDF document file:

Specifically regarding claims 28 and 38, a PDF file describes a document, and comprises all of the information necessary to display the document. For example, Bienz discloses that a PDF document is implemented by a hierarchy of objects included within a PDF file (see section 6.1 on page 71). In particular, each page of the document is realized by a corresponding "Page object," the Page object being efficiently accessed through a "Pages tree" structure (see section 6.3, beginning on page 75). Each Page object describes the content and functionality of a single document page (see section 6.4, beginning on page 77), and particularly comprises a "Contents" parameter, which references the page description of its corresponding document page (see section 6.4, on page 78). It is understood that this page description comprises a series of graphic objects, considered display elements and image data objects like recited in claims 28 and 38, respectively, which are displayed within the associated document page (for example, section 8.1 beginning on page 209).

In addition to all the necessary display data, a PDF file comprises all the information necessary to scroll the document. For example, Bienz discloses that a PDF file may define one or more article "threads," each comprising one or

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*more “beads” (see section 6.12 beginning on page 111). An article bead is associated with a distinct section of an article, whereby a plurality of such beads may be linked into a common thread, so that a user may read an entire article by scrolling from one article bead to the next, rather than from one page to the next (see section 6.12, beginning on page 111). **In particular, each bead includes an “R” parameter, which identifies the page location on which its associated article content (i.e. graphic objects) appears (see Table 6.44 on page 112)....***

Bienz thus presents a pre-specified unit of display data (i.e. a PDF file), which includes (i) a series of display elements (e.g. graphic objects) for display by the display device, and (ii) management elements associated with the display elements, the management elements including all information necessary for the display device to display a predetermined sequence of said display elements as a scroll display, and wherein the predetermined sequence of the display elements includes an interval (i.e. bead) or intervals that sequentially together form a scroll path (i.e. thread), each interval being specified by line segments defined by coordinate values of a starting point and an ending point in a coordinate system defined by the pre-specified unit corresponding to coordinate values assigned to the display elements in the pre-specified unit., as is claimed. (Final Office action, mailed 05/12/2009, pages 3-5, emphasis added).

This correlation between the document content of a PDF document and the display elements or image data objects of the claimed invention holds in view of the specification, which doesn't specifically define “display elements” or “image data objects,” but does suggest that each page

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includes “data elements” such as character data and image data (see e.g. page 81), and that a scroll path can occur with respect to e.g. a newspaper article (see page 82). Accordingly, the Examiner respectfully maintains that each separate PDF file as taught by the prior art can be considered a “pre-specified data unit” and “distinct file” as claimed, and that the PDF document content (e.g. portions of an article) understandably includes “display elements” and “image data objects” like claimed, given their broadest, most reasonable interpretations.

The Appellants argue that the “thread” taught by the prior art is not equivalent to the claimed “scroll path,” and that the prior art fails to specify the sequence in which the display element content in each claimed interval is to be read.

The Appellants assert:

“[T]he Examiner has taken apparently divergent positions regarding what the “scroll path” as defined in the present claims is relative to the elements of the cited art upon which he relies. Appellants, on the other hand, respectfully submit that the “scroll path” of the present invention is distinctly different from the scroll paths discussed by the Examiner with respect to the cited art.” (Appeal Brief, page 30).

“At best a “thread” as defined in the PDF Reference Manual acts like a vector in the present invention in that it operates to connect one end of one portion of a rectangle defining a portion of the scroll path to the start of another rectangle defining another portion thereof. In other words, the “threads” are not equivalent of the presently claimed “scroll path” (nothing in the “thread” teaches, discloses or suggests anything about the sequence in which the contents elements within each block are to be displayed or read).” (Appeal Brief, page 30).

“[A]ccording to the Examiner, the “scroll path” has several different meanings, namely: the “thread” of the PDF Reference Manual that runs between the “beads”, a sequence of display elements, or an interval (bead) or intervals (beads) that include display elements that may or may not be displayed sequentially, among other potential definitions.” (Appeal Brief, page 32).

“[T]he ‘R’ parameter is denoted by 4 values that identify the coordinates of the corners of the rectangle surrounding the associated article content starting at the upper right and ending at the lower left corner of the rectangle (contrary to the normal way in which the English language is read - noting that nothing determines for the user the sequence in which the display element content of the respective beads is to be read even if it is displayed line by line according to some sort of undefined interpretation of Warnock display scheme) [sic].” (Appeal Brief, page 34).

“Appellants, however, do not agree that this fact in any way establishes that the PDF Reference Manual “thread” in any way, shape or manner qualifies as a “scroll path” as herein claimed. As indicated above, the “thread” of the PDF Reference Manual acts only like the vectors in the present invention in operating to interconnect various portions (i.e. “beads”) of the “scroll path” with one another whether the “scroll path” be a series of beads as in the PDF Reference Manual or a series of display elements read in a specified sequence defined by line segment(s) as herein claimed.” (Appeal Brief, page 35).

“[T]he Examiner attempts to suggest that, the “scroll path” (to the extent that it can be said to exist at all) is the path that defines the sequence in which the content elements contained in each of the respective beads in the defined sequence thereof are to be read...” (Appeal Brief, page 36).

“The “threads” are not made up of the “beads” in the PDF Reference Manual. Rather, the threads are indications of the sequence in which the various beads

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should be read. That is the “threads” connect the “beads” as described above, but nothing in the PDF Reference Manual specifies the sequence in which the content of the beads is to be displayed or read.” (Appeal Brief, page 36).

“[T]he “scroll path” in the present claims is the path made up of the sequential display of the actual display elements that are to be displayed, not the path connecting rectangles surrounding various portions of an article content to be displayed together as a group simultaneously according to their respective positions along the “scroll path” (or thread) of the PDF Reference Manual that is not the same as the scroll path of the present invention.” [sic] (Appeal Brief, page 45).

“Perhaps more clearly and distinctly stated, the ‘scrolling’ of the present invention is directed to a ‘scroll path’ formed within the actual display element content in the present specification and claims rather than to a scroll path constituting ‘beads’ defining blocks of simultaneously displayed element data joined by ‘threads’ leading sequentially from one bead to the next.” (Appeal Brief, page 48).

“[I]n the combination proposed by the Examiner an entire block of content data is available *simultaneously* [sic] rather than individual items of content data being available for display *sequentially* [sic]. This is the result of the distinctions between the scroll path of the present invention and the scroll path of the combined references relied upon by the Examiner and discussed at length above.” (Appeal Brief, page 50).

The Examiner, however, respectfully disagrees with the Appellants’ arguments. The Appellants misstate the cited arts’ teachings. A thread is not simply a vector that operates to connect one end of one portion of a rectangle defining a portion of the scroll path to the start of another rectangle defining another portion thereof. A thread identifies all the portions (i.e.

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“beads”) of an article, so that the entire article can be navigated (i.e. scrolled) at an appropriate zoom level. The PDF reference manual makes this abundantly clear:

“An *article thread* identifies related elements in a document, enabling a user to follow a flow of information that may span multiple columns or pages.

A PDF document may include one or more article threads. Each thread has a title and a list of thread elements, which are referred to as ‘beads.’ A viewer may allow the user to select a particular thread and then navigate through it; the viewer automatically maintains a comfortable zoom level for reading and moves from one bead to the next, rather than from one page to the next.” (Section 6.12, page 111).

The cited Warnock et al. U.S. Patent provides similar teachings of a “thread,” which specifies a particular navigation path through a document, i.e. a particular string of article portions (beads) making up an article (see e.g. column 2, lines 29-37, column 10, line 56 - column 11, line 63; and column 12, lines 42-45). A thread thus defines a path through which one navigates (i.e. scrolls) through a document, and accordingly equates to a scroll path, given the broadest, most reasonable interpretation of such a scroll path.

With respect to the scroll path, claim 28 for example, discloses that “said predetermined sequence of said display elements includes an interval or intervals that sequentially together form a scroll path, each said interval being specified by a line segment defined by coordinate values of a starting point and an end point...such that the display elements forming the intervals defining said scroll path are respectively sequentially displayed from said starting point to said end point thereof as said scroll path is displayed by said display device.” Displaying an article via a PDF thread entails a predetermined sequence of display elements (i.e. document content) that includes an interval or intervals (i.e. beads of document content) that sequentially together form a scroll path (i.e. the thread), each interval being specified by a line segment defined by

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coordinate values of a starting point and an end point (i.e. the boundary lines of a rectangle, the “R parameter,” delineating the bead, which start and end at the corners of the rectangle), such that the display elements forming the intervals defining the scroll path are respectively sequentially displayed from the starting point to the end point thereof as the scroll path is displayed.

Note also that displaying data elements simultaneously is not mutually exclusive of displaying the elements sequentially; data elements can both be displayed simultaneously and sequentially. For example, a paragraph of text comprises a sequence of words that are displayed simultaneously. The Appellants submit that “nothing in the ‘thread’ teaches, discloses or suggests anything about the sequence in which the contents elements within each block are to be displayed or read.” But this is incorrect. Each block (i.e. “bead”) within the thread includes “P” and “R” parameters, which specify the page and page location of the article content making up the block (see Table 6.44 on page 112). The R parameter is denoted by 4 values that identify the coordinates of the corners of the rectangle surrounding the associated article content (see section 7.1 on page 133). It is understood that the article content (e.g. the letters, words, paragraphs) within each rectangle is necessarily ordered; letters are ordered to make words, words are ordered to make sentences and paragraphs, and lines of text can make up the content of an article section. Indeed, Warnock demonstrates that content within each article section is displayed in a sequence of words, sentences, and lines (see e.g. Fig. 4c, where the article text is displayed sequentially from top to bottom). Accordingly, the content elements (e.g. lines of text) within each rectangle are necessarily displayed in a sequence beginning from the top of each rectangle to the bottom of the rectangle defining the bead. The display

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elements, that is, are inherently displayed sequentially from a starting point (e.g. a top) to and end point (e.g. the bottom) of the bead.

The Examiner also disputes the assertion that he has taken divergent positions with respect to the claimed “scroll path” vis-à-vis the prior art. The final Office Action (including the portions cited by the Appellants), for example, clearly discloses that the thread taught by the prior art equates to the claimed scroll path:

Consequently, as a thread is formed by a plurality of intervals, namely beads, which are specified by line segments having different directions in a coordinate section defined by the PDF file, a thread is considered a scroll path along which scrolling through a document is to be conducted. (Final Office action, mailed 05/12/2009, page 5).

Though the Office Action discloses that a user may scroll from bead to bead, or within a bead, at no point is there any assertion that the claimed scroll path is a mere sequence of display elements or an interval (i.e. bead).

The Examiner thus respectfully maintains that the “thread” taught by the prior art is equivalent to the claimed “scroll path,” and that the prior art does in fact specify the sequence in which the display element content in each claimed interval is to be read.

The Appellants argue that PDF file “beads” (considered “intervals” like claimed) are not specified by a line segment having a starting point and an ending point like claimed.

The Appellants assert:

“...Appellants agree that the respective PDF beads are each specified by a rectangle (i.e., two sets of line segments having different directions in a

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coordinate system - two parallel line segments extending in a first direction and two parallel line segments extending in a second transverse direction relative to the first line segment pair - **not individual line segments each having a line segment starting point and a line segment ending point as is now claimed** [sic]).” (Appeal Brief, page 35).

“[I]t will be recalled that the intervals forming a scroll path in the present invention are specified by line segments respectively defined by coordinate values of a **line segment** [sic] starting point and a **line segment** [sic] end point according to coordinate values assigned to the display elements in the pre-specified unit (not the content of defined rectangles without direction as to how that content is to be presented to and/or read by user [sic] despite the Examiner’s attempt to suggest otherwise.)” (Appeal Brief, page 42).

“Appellants respectfully submit that the present invention is clearly and unambiguously distinct from any and/or all of the art cited by the Examiner taken alone, or any combination, by the fact that the ‘scroll path’ hereinabove claimed is a scroll path defined by ‘a line segment starting point and a line segment end point in a coordinate system defined by said pre-specified unit according to coordinate values assigned to the display elements in said pre-specified unit’ [sic]...This is to be distinguished from a scroll path of the PDF Reference Manual that is alleged by the Examiner to be defined by ‘a start point (i.e. an upper right corner) and an end point (i.e. a lower left corner).” (Appeal Brief, page 46).

“Hence, it will be understood that it is nowhere described in the PDF Reference Manual that scroll display is to be initiated at the upper right corner specified by the ‘R’ Parameter as one of the corners of the block (a starting point) of display data constituting the associated ‘bead.’” (Appeal Brief, page 47).

The Examiner respectfully disagrees with the Appellants’ arguments. As described above, each bead is delineated by a rectangle (i.e. the “R parameter”) surrounding a particular

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portion of document content. Like admitted by the appellants, each bead is thus delineated by two sets of line segments that make up the rectangle: two parallel line segments extending in a first (e.g. horizontal) direction and two parallel lines segments extending in a second, transverse (e.g. vertical) direction. Each line segment inherently has starting and ending points (i.e. at the corners of the rectangle). As noted above, the display elements (e.g. text) are inherently displayed sequentially from a top of the rectangle to the bottom of the rectangle (e.g. when scrolling in the forward direction like demonstrated by Warnock). And so, the display elements would be displayed from a starting point of a first line segment (e.g. the top of a vertical line segment) to the end point of the line segment (e.g. the bottom of the vertical line segment) when a particular bead is displayed. The claims do not require the scroll display to be initiated at the starting point and finished at the end point. The claims do not require the display elements to be displayed one at a time (as apposed to simultaneously) during the scroll display. Instead, the claims only require that, "the display elements forming the intervals defining said scroll path are respectively sequentially displayed from said starting point to said end point thereof as said scroll path is displayed by said display device" (claim 28). In the prior art, the display content (e.g. lines of text) forming the beads defining the thread are respectively sequentially displayed from the starting point (e.g. the top of a bead) to the end point (e.g. the bottom of the bead) as the thread is navigated.

Moreover, the claimed invention is not limited to only 1 line segment being applied to specify the interval. Claim 28 recites, "each said interval being specified by a line segment defined by coordinate values of a starting point and an end point...such that the display elements forming the intervals defining said scroll path are respectively sequentially displayed from said

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starting point to said end point thereof as said scroll path is displayed by said display device.”

Claim 38 includes a similar recitation. However, neither claims excludes other elements from being applied to specify the interval. Indeed, the specification of the present application discloses that each interval (“partial block”) must be specified by a rectangle (i.e. “frame”) (see e.g. pages 83-84). The Examiner thus respectfully maintains that each bead within the PDF reference manual is specified by a line segment, among others (i.e. the other line segments making up the rectangle), defined by coordinate values of a starting point and an end point, whereby the display elements (e.g. lines of text) within the bead defining the scroll path are respectively sequentially displayed from said starting point to said end point thereof as said scroll path is displayed, like claimed.

The Appellants argue against the Mastie reference (US Patent No. 6,480,866).

The Appellants appear to agree with the Examiner that, in view of the Saito reference, it would have been obvious to one of ordinary skill to store a document via a plurality of PDF files so as to allow different access rights to be specified for different portions of the document:

“[T]he Examiner had relied upon the Saito reference for the proposition that it would be obvious to one of ordinary skill in the art to break a single PDF file down into multiple PDF files because such would allow different access rights to be specified for different portions of a document. Appellants do not dispute the basic concept of Examiner’s specific point in this regard...” (Appeal Brief, page 37).

For some reason, however, the Appellants provide arguments with respect to the Mastie reference, and argue that it would not have been obvious to “combine individual files into a

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single PDF file” via the logic of the Mastie reference (see pages 37-41 of the Appeal Brief).

The Appellants also provide arguments with respect to the Mastie reference on page 47 of the Appeal Brief.

In response, the Examiner respectfully notes that the Mastie reference has not been applied since the Final Rejection mailed on October 29, 2007, after which it was withdrawn in view of the Saito reference. The Mastie reference is not part of any pending rejection, that is, and hasn’t been for several iterations of Office Actions. Moreover, the Appellants’ arguments with respect to the Mastie reference do not particularly apply to the Saito reference.

Accordingly, although the Examiner does not necessarily agree with the Appellants’ arguments, for the sake of brevity and to avoid obfuscating the issues on appeal, the Examiner respectfully declines to address the Appellants’ arguments concerning the Mastie reference.

The Appellants appear to argue that a single PDF file does not include a plurality of “pre-specified” data units (each having separate management information and display content) like claimed, i.e. the Appellants appear to argue that the individual pages within a single PDF file cannot be considered “pre-specified units” like claimed.

The Appellants argue a great deal that, within a PDF file, the content for each page is stored separately from the management information for that page, and that therefore, each page within a PDF file is not a "pre-specified" unit like claimed:

“[T]he fact remains that the present invention stores the display data associated with each data grouping together with its associated management information, rather than in a form dependent upon selections from the catalog of display and

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formatting functions (management functions) stored for the entire document as is done in a PDF document file.” (Appeal Brief, page 42).

“[N]o matter how one approaches the PDF format, it is necessary in the use of each page, or article portion thereof to refer back to information stored as part of the whole PDF file outside of the so-called “page objects”...” (Appeal Brief, page 43).

“[T]he PDF Manual at certain points seems to broadly suggests [sic] that each so-called “page” may be basically separate unto itself as an abstract concept, **the true, real world fact is that at least part of the display information and associated scroll information for each such page depends upon information created and saved in the body portion of the PDF file separately from the page objects (data) in question** [sic]...” (Appeal Brief, page 44).

“[T]he pre-specified units of the present invention to the extent that they may individually represent pages or article portions contain within themselves all of their own display information, including scroll display control information. The PDF Document Format, on the other hand, does not contemplate that each so called “page” is to be a pre-specified unit in the sense of the present invention.” (Appeal Brief, page 44).

“When reduced to its basics, therefore, Appellants respectfully submit that the PDF concept stores “documents” in the form of “pages” (i.e. groups of page objects) separately from at least some of the data contemplated as being necessary for display of the individual image data (page objects), and separately from all of the other information necessary for the association of that image data (“page objects) in the form of appropriate control sequences including the parameters required to achieve the association and control of the display of various combinations of the image data (“page objects”) as desired.” (Appeal Brief, page 45).

In response, the Examiner respectfully notes that, in the pending rejection, instead of individual pages within a PDF file, the entire PDF file itself is considered to constitute a single “pre-specified unit.”

*In general, Bienz describes the Portable Document Format (PDF), a file format used to specify electronic documents such that the documents are easily and reliably exchanged and viewed (see section 2.1, on page 27). Such PDF documents are stored as files (see section 2.3.2, on page 30), which are understandably maintained in computer memory. As described below, each of these files comprises data to be displayed, in addition to all the display information and scroll display control information necessary for the display of the data. **Each of these PDF files is consequently considered a “pre-specified unit,” like recited in the claimed invention.** (Final Office action, mailed 05/12/2009, page 3, emphasis added).*

The Appellants’ arguments respond to the contention that a PDF file comprises a plurality of pages or “page objects” that can each be considered a “pre-specified unit” like claimed. However, as noted above, the Examiner has not argued this since May 20, 2004. Beginning with the Final Rejection mailed on February 28, 2005 (see page 6) which was in response to numerous claim amendments, and continuing to the present day, the Examiner has maintained that, instead of individual pages within a PDF file, the entire PDF file itself constitutes a single “pre-specified unit.” The Appellants’ arguments disregard this fact, and are not relevant. The Appellants’ arguments should thus be ignored; they are not applicable to the pending claims or the pending grounds of rejection.

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(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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July 2, 2010

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